

28. (Amended) An optical wiring device comprising:
an electric connecting portion;
optical transmission means for transmitting an optical signal; and
an optical device that conducts an optoelectric conversion, said optical device comprising at least a surface optical device and being disposed between said electric connecting portion and said optical transmission means,
wherein said optical transmission means and said optical device are fixed such that said optical transmission means is optically coupled to said optical device, and said electric connecting portion is detachable.

29. (Amended) An optical wiring device according to claim 28, wherein said optical device includes a light emitting device and a light receiving device, which light receiving device is a p-i-n photodiode or a metal-semiconductor-metal (MSM) photodiode.

30. (Amended) An optical wiring device according to claim 28, wherein said optical device has a plurality of surface optical devices with independent electrodes mounted in a flip-chip manner.

31. (Amended) An optical wiring device according to claim 28, wherein an integrated electronic circuit device that drives said optical device is disposed in said optical connecting device.

32. (Amended) An optical wiring device according to claim 28, wherein said optical device is a surface emitting device having multi-layer reflective mirrors.

33. (Amended) An optical wiring device according to claim 28, wherein said optical transmission means includes a metal wiring.

34. (Amended) An optical wiring device according to claim 33, wherein the metal wiring is formed as a wiring pattern.

35. (Amended) An optical wiring device according to claim 28, wherein said optical device is driven by a CMOS buffer of an external apparatus connected to said electric connecting portion.

36. (Amended) An optical wiring device according to claim 28, wherein said electric connecting portion includes a recessed electric coupler.

37. (Amended) An optical wiring device according to claim 28, wherein a plate having a window is disposed between said optical device and said optical transmission means and the window has a lens.

38. (Amended) An optical wiring device according to claim 28, wherein said optical device is prepared by a process comprising the steps of forming an active layer on a substrate and removing said substrate.

39. (Amended) An optical wiring device according to claim 28, wherein said optical transmission means comprises a single mode fiber.

40. (Amended) An optical wiring device according to claim 28, wherein said optical transmissions means is fixed in said optical connecting device by V-shaped grooves on a silicon substrate.

41. (Amended) An optical wiring device according to claim 28, wherein said optical transmission means comprises a waveguide sheet in which waveguide cores are arranged in an array.

42. (Amended) An optical wiring device comprising:
an electric connecting portion;
optical transmission means for transmitting an optical signal; and
an optoelectric converting portion, said optoelectric converting portion including a plurality of surface emitting devices and a plurality of surface receiving devices and being disposed between said electric connecting portion and said optical transmission means,

wherein said optical transmission means and said optoelectric converting portion are fixed such that said optical transmission means is optically coupled to said optoelectric converting portion, and said electric connecting portion is detachable.

43. (Amended) An optical wiring device comprising:

an electric connecting portion;

optical transmission means for transmitting an optical signal; and

an optoelectric converting portion, said optoelectric converting portion including a plurality of surface optical devices arranged in a two-dimensional array and being disposed between said electric connecting portion and the optical transmission means,

wherein said optical transmission means and said optoelectric converting portion are fixed such that said optical transmission means is optically coupled to said optoelectric converting portion, and said electric connecting portion is detachable.

44. (Amended) An optical wiring device comprising:

an electric connecting portion;

optical transmission means for transmitting an optical signal; and

an optoelectric converting portion, said optoelectric converting portion including at least a surface optical device and through-hole and being disposed between said electric connecting portion and said optical transmission means,

wherein said optical transmission means and said optoelectric converting portion are fixed such that said optical transmission means is optically coupled to said optoelectric converting portion, and said electric connecting portion is detachable.

45. (Amended) An electronic device comprising an optical wiring device according to claim 28 to connect at least first and second boards.

46. (Amended) An electronic device comprising an optical wiring device according to claim 42 to connect at least first and second boards.

47. (Amended) An electronic device comprising an optical wiring device according to claim 43 to connect at least first and second boards.

48. (Amended) An electronic device comprising an optical wiring device according to claim 44 to connect at least first and second boards.

49. (Amended) An electronic device comprising a display, a computer, and a connecting means for wiring said display and said computer, wherein said connecting means comprises an optical connecting device according to claim 28.

50. (Amended) An electronic device comprising a display, a computer, and a connecting means for wiring said display and said computer, wherein said connecting means comprises an optical connecting device according to claim 42.

51. (Amended) An electronic device comprising a display, a computer, and a connecting means for wiring said display and said computer, wherein said connecting means comprises an optical connecting device according to claim 43.

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52. (Amended) An electronic device comprising a display, a computer, and a connecting means for wiring said display and said computer, wherein said connecting means comprises an optical connecting device according to claim 44.

Please add new Claim 53 as follows:

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--53. (New) An optical wiring device comprising:

an electrical connecting portion;

an optical transmission means for transmitting an optical signal, said optical transmission means including a metal wiring; and

an optical device for conducting an optoelectric conversion, said optical device disposed between said electric connecting portion and said optical transmission means,

wherein said optical transmission means and said optical device are fixed such that said optical transmission means is optically coupled to said optical device, and said electric connecting portion is detachable.--

REMARKS

Applicant requests favorable reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks.

Claims 28-53 are pending in the present application. Claims 28, 42-44, and 53 are the independent claims.